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### The History of Acne

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ACNE cannot be regarded as a serious disease or measured in terms of life and death, but it has a nuisance value out of all proportion to its seriousness, affecting, as it does, young people at an age when they are most sensitive to any disfigurement. It is therefore to be expected that references to acne will occur in the medical or other literature of all highly civilized communities.

Before dealing with ideas on the associations or varieties of acne, it seems pertinent to attempt to trace the origin of the word "acne", itself a problem which has been argued for hundreds of years without any completely satisfactory conclusion being reached.

The ancient Greek physicians certainly recognized acne which they knew as *ιονθοι*, a condition which Aristotle [1] describes in sufficient detail for there to be little doubt of the identification. Hippocrates [2] also uses the term, but does not state what he means by it, although his wording suggests that it was a well-known and recognized disease. That *ιονθοι* were associated with puberty is implied in the meaning of this word in the singular, *ιονθος*, which means "the first growth of the beard".

The early Roman physicians, on the other hand, used the word "varus" which is mentioned by Pliny [3] and discussed briefly by Celsus [4].

For reasons which I hope to make apparent, the meaning of the Greek word "*ἀκμή*" is important. Previous to the second century A.D. it had a definite medical meaning, to which Galen [5] devotes a whole paragraph, as "the height of a disease", "the crisis of a fever", &c. and is not in any way related to skin disease. However, in the second century A.D. its meaning appears to be widened to include the height or culmination of growth and development and thus "puberty". It is in this meaning that it first appears in relation to "*ιονθοι*" in the works of the Greek physician Julius Pollux [6]. The Latin text is not infrequently quoted in later literature but the Greek text seems more significant philologically (Fig. 1).

νίζουσα τὴν εἰς φῶς χεῶμα, ἰονθοί, ἀκμή-  
ματα ψυδρακίους \* πρὸ τοῦ πρὸς τὴν φ, ση-  
μείον ἀκμῆς. ἰπώπια, φακὴ ὅμοια τοῖς  
σείων, συγγλυεῖς, ὁδὸν γλυεῖς. θυμός, ἰπ-  
ερυθρός, ἐκφυοῖς τραχεία, ἐκφυοῖς, οὐδὲν  
phelis, faciei dolor, subliuida infestatio, na-  
turem corrumpens colorem. Ionthi, flo-  
res cū \* papulis circa faciē, vigoris signū. o-  
culis subiacentes, lenti legumini similes, co-  
gnati siue innati. Thymus, subrufa ampulla,

FIG. 1.—Julius Pollux: *Onomasticon, decem libris constans* . . . Frankfurt, 1608, p. 220, 11, 39–43.

■ Cassius [7], in the third century A.D., goes a little further and explains that since the disease occurs at the "*ἀκμή*" that is "puberty", the people call it "*ἀκμῆς*" (Fig. 2).

33 Cur in facie vari prodeūt ferè in ipso ætatis flo-  
re vigoreque (quapropter & ἀκμῆς, id est nigores, idio-  
tarum vulgus eos nuncupat) Hi profeθὸ, vt totā faciē

FIG. 2.—From *Medicæ Art. Princ.*, Volume 1, 1567, p. 760.

So far, the suggested origin of the word "acne" as a misrepresentation of "acme" seems quite straightforward, but trouble starts in the fifth century A.D. with the works of Aetius [8]. His use of the word "acne" is of such importance that I think it needs special consideration. I have consulted six of the earliest printed editions of his works the earliest being the 1533 Basle edition which is in the Library of the Royal Society of Medicine. The important lines from the next five editions in the Wellcome Historical Medical Library (Venice, 1534; Basle, 1535; Frankfurt, 1541; Basle, 1542; and Leyden, 1549) are illustrated in Fig. 3, reading from above down.

Γ δὲ ἰόνθων καὶ προσώπων, τινες δὲ σκινὰς καλοῦσιν. 17.  
 ἰόνθων δὲ ἰόνθων, ὅγκος μικρὸς καὶ σκληρὸς ἐν τῷ κατὰ πρόσωπον δερματι γιγνώσκουσιν. Ἐπὶ παχέος  
 δὲ καλοῦσι τὸ χυμῷ παχέος καὶ οὐκ ἐν τῷ τοῦ θόρακος, ὅτι τῷ μαλακτῶντι πῶ σκληρὸν γίγνεται, καὶ

De uaris faciei, qui tum ionthi, tum acnæ Græcis uocantur. Cap. XIII  
 Vari, ionthi, acnæ. Solet circa faciei cuticulam tuberculum oboriri, paruum quidem, sed durum, quod uari nomine appellatur. Id fanè à crasso humore producitur.

De uaris faciei, qui Græcis ionthoi & acnæ  
 vocantur, Cap. XIII.

De uaris faciei, qui tum Ionthi, tum Acnæ Græcis uocantur. Cap. XIII  
 Solet circa faciei cuticulam tuberculum oboriri, paruum quidem, sed durum, quod uari nomine appellatur. Id fanè à crasso humore producitur. Quare cura

De uaris faciei, qui tum Ionthi, tum Acnæ Græcis  
 uocantur. Cap. XIII.  
 Solet circa faciei cuticulam tuberculum oboriri, paruum quidem, sed durum, quod uari nomine appellatur. Id fanè à crasso humore producitur. Quare cura

FIG. 3.—Aetius. Tetrabiblion 2, Sermo 4, Cap. 13; or De Re Medica, Sermo 8, Cap. 13.

In view of the fact that five out of six early editions have the spelling "acne" rather than "acme" I think the idea can be ruled out that the "n" is a misprint, especially as the Frankfurt edition—the only one with the spelling "acme"—appears to contain other misprints in the next few lines.

The alternative theory that the "n" is there as an early copyist's error also seems untenable, for I am assured that it is a reasonable philological proposition that a copyist or translator, who must of necessity have a working knowledge of the terms involved, is more likely to write a common word in place of a rare word than vice versa. It therefore seems probable, that Aetius himself used the word "acne", this being the first traceable use of this word.

For an explanation of the reason of such a spelling it is necessary to advance a thousand years to the time shortly after the publication of these works. In 1564, Gorraeus [9], who appears to be in no doubt about the distinction between "acme" and "acne", stated that "acne" is so called because it does not itch, suggesting therefore that it is derived from the Greek "α" as a prefix to a contraction of a "κνησις" or other similar words meaning "scratching".

Most writers since this time have taken one or other of these two apparently incompatible views as to the origin of the word "acne". A further suggestion has been that it originates from the Greek word "ἐχνη" ("anything that comes off the surface") but I have not been able to find any historical support for this.

Although I make no claim to be a philologist I would like to take a middle course in this matter and offer a suggestion: We know from Cassius [7] that the word "ἀκμᾶς" was first used as a lay term and thus may not have had any official spelling. Such a situation might have resulted from its adoption into spoken Greek from a foreign source. Subsequent attempts to fit it into Greek medicine could have resulted in a variety of spellings, each with its rational explanation.

Historical and geographical considerations suggest Ancient Egypt as a possible source, bearing in mind the Greek domination of Egypt for the last three centuries before Christ and the attention paid there to medicine in general and skin conditions in particular. When I discovered that they had a word "aku-t" which occurs in the Ebers Papyrus [10] and elsewhere and is translated by Budge [11] as "boils, blains, sores, pustules, any inflamed swelling" (Fig. 4), I felt that the similarity was too close to ignore.


**aku-t** , boils, blains, sores,  
pustules, any inflamed swelling.

FIG. 4.—Budge, Sir E. A. Wallis. *An Egyptian hieroglyphic dictionary*. London, 1920, p. 11. Aku-t.

I thought it might be worth while to compare the prescription for this condition given in the Ebers Papyrus with some Greek prescriptions for acne, but unfortunately the Egyptian Pharmacopœia of the time appears to contain largely ingredients of animal origin, whereas the Greek contains mainly vegetable preparations. There is one common factor in honey, but as this is so frequently used in both countries I cannot offer it as confirmatory evidence.

Turning now to the associations and varieties of acne which have been recognized, I feel obliged to include a few words on rosacea, the history of which is inseparably intertwined with that of acne.

The earliest reference to a condition which may have been rosacea has been pointed out to me by one of my colleagues, Dr. Ida Macalpine [12]. I refer to the Mark of Cain which is mentioned in the Fourth Chapter of Genesis and was probably written about two thousand years B.C. I am assured by a minister of the Church that such an idea does not conflict with any established opinion of the Church. Certainly, by earthly modern standards, Cain had good reason to have the feelings of guilt and shame which are now recognized as important aetiological factors.

The early Greek and Roman writers seem to confine the terms "ionthoi" and "vari" to a condition occurring at puberty and therefore probably limited to acne vulgaris as we know it, and not including rosacea.

Theocritus [13], in the third century B.C., may have been describing rosacea when he mentioned the pimples on the nose said to be caused by telling a lie, and for which he uses the word "ψεῖδος". This word elsewhere was used to mean "a lie" but the meaning here is explained by the Scholiast, who uses the terms "ionthoi" and "psydration" to describe the lesions.

The earliest suggestion that "ionthoi" might include more than one disease was made by Galen [14] who gave different prescriptions for two kinds of "ionthoi" in one of which the nodules were harder than the other. The same distinction is made by Paulus [15] in the seventh century A.D. who prescribed honey for the softer lesions and a mixture in a soap basis for the harder lesions. Neither Galen nor Paulus gives an adequate clinical description to allow identification of these two types in modern terms.

A good clinical description of rosacea occurs in Chaucer in his sketch of the Somnour in the Prologue to the Canterbury Tales.

A somnour was ther with us in that place,  
That hadde a fyr-reed cherubbines face,  
For sawcefleem he was, with eyen narwe.  
As hoot he was and lecherous as a sparwe,  
With scalled browes blake and piled berd;  
Of his visage children were aferd.  
Ther nas quik-silver, litharge ne brimston,

Boras, ceruce, ne oille of tartre noon,  
Ne oynement that wolde clense and byte,  
That him mighte helpen of his wheelkes whyte,  
Nor of the knobbes sittinge on his chekes.  
Wel loved he garleek, oynons and eek lekes,  
And for to drinken strong wyn red as blood.

Prologue, 623-635.

This passage is also of interest in showing that the pharmacological armamentarium of those days did not differ significantly from that of to-day and that Chaucer recognized the association with, or aggravation by, spicy foods and strong drinks.

The conception of rosacea as a permanent blush is given by Falcutius [16] about A.D. 1400, whose words I would like to quote from the English translation of Daniel Turner: "... and deduceth the cause from a hot but viscous and thick blood generated by some intemperies or vice of the liver, which being brought by the capillary arteries to the surface of the skin of the face is there diffused as happens in blushing, but by reason of its lentour or clamminess not being returned as it ought presently by the veins, stops therein and causeth redness, which neither yet being capable to be discust by reason of the density of the cuticle, raiseth

the same up into little pustules, and at length ulcerates, having vitiated the frame of the cutaneous glandules by its long stagnation."

Rhodiginus [17] has clearly been influenced by the Scholia of Theocritus and thus seems to confuse rosacea and acne more than other sixteenth century writers.

The sixteenth century seems to have produced several penetrating observations from which I have selected four written in English. Sir Thomas Elyot [18] in his *Castell of Helth* describes a condition, due as he says, to an abundance of melancholy blood in which he associates adiposity of the upper part of the body with boils, much urine, and "black poushes"—one wonders if he had seen acne in association with endocrine dysfunction.

Nicholas Udall's translation of the Apophthegmata of Erasmus [19] contains an interesting note which shows once again the relationship of rosacea to shame.

The oratours and aduocates (who wer had in high price and estimacion in Athenes) he called the common droudges and pages, of euery Iacke and Gille, for that thei wer of force constreined, to speake all that euer thei did, to please men, and euen like bonde slaues, to flatter the beastlie foolishe rable of the people. And the assembles of the people, swarmyng about the same orators, he called the pimples or little wheales of glorie.

¶ The Greke word that he vsed, was *ἐξανθήματα*, that is, little pimples or pushes, soche as of cholere and false flegme, budden out in the noses and faces of many persones, & are called the Saphires & Rubies of the Tauerne.

6.

Frequente assemblies of the people gathering about the oratours been the pymples of glorie.

¶ Mening thereby (as I suppose) that like as soche pushes in the visages of men, are angrie things and greffull, and also finall discomfort to the parties, that the same may not for shame shewe their faces, but hidden themselves, and refrain to come in compaignie: so the frequent assembles of people, swarming about oratours, doe finallie purchase and conciliate vnto the same moche enuie, displeasure, hatered, trouble and vexacion, ensuyng of the glorie that thei haue in the beginning. As chaunced to *Demosthenes*, and to *Aschines* in *Athenes*, and to *Cicero* in *Roome*.

From Udall, Apophthegmata of Erasmus. The I Booke, 79.

Although he is discussing the meaning of the Greek word "*ἐξανθήματα*" there is no doubt that he is referring to rosacea when he talks of "the Saphires and Rubies of the Tauerne".

Andrew Borde [20] in his Breviary draws attention to the dietary associations of rosacea.

No summary of this period of history could be complete without a quotation from Shakespeare [21]. Here is Fluellen's description to King Henry V of "... one Bardolph, if your Majesty know the man: his face is all bubukles, and whelks, and knobs, and flames o' fire".

Turning to the seventeenth century and returning to medical writings, Sennert [22] is certainly the most frequently quoted. He follows the line of thought of Theocritus and Rhodiginus, deals with acne and rosacea under the same heading, and distinguishes himself by pointing out how difficult these conditions are to cure.

Some more constructive remarks were made by Riolanus [23] in 1638 who associated acne with disorders of menstruation and particularly by Jonston [24] in 1648 (Fig. 5), who

ana Tartari.

I V. *Vari seu ióδοι, sunt tumores duri & parvi, in faciei cute, à crasso succo congregati. Cognoscuntur faciliè. Sunt magnitudine feminis cannabini, & adolescentes ad Venerem aptos, prolificos, fed continentes infestant. Oriuntur ab humore plerumque alimentari, qui se poris cutis insinuat, & interdum*

linked acne with a pattern of heterosexual behaviour in a manner very close to modern psychosomatic ideas on the subject. His words are translated by Culpeper as: "Vari are little hard tumours on the skin of the face curdled up of an hard thick juice. They are known easily. They are of the bigness of a hemp seed, and they infect young people that are inclined to venery and fruitful, but chast withal and continent."

One gets the impression from Daniel Turner [25], writing in 1714, that most physicians of the time considered the treatment of such minor conditions beneath their dignity, but in the latter half of the century these diseases are made to fit into the elaborate classifications which were then becoming popular. Sauvages [26] following the ideas of the Theocritus, Rhodiginus, and Sennert approach to the problem, is doubtful about including the Gutta Rosae of wine bibbers in the same category as ordinary acne.

The Gutta Rosacea (or Rosae) is subdivided into nine types by Plenck [27] in 1783, who deals only very briefly in a separate Chapter with Vari seu Ionthi. His brevity, however, is not without point for in his second edition he adds the categorical statement "Matrimonium varos curat".

Passing into the nineteenth century the first to be considered must be the fathers of modern dermatology, Willan and Bateman [28]. They divide acne, in the sense of Ionthoi or Vari into three types, simplex, punctata and indurata on the basis of three types of lesion which occur. A fourth member of this group of diseases they call acne rosacea which they agree is the Gutta Rosae or Gutta Rosacea of the older physicians. Willan and Bateman are the first to apply the word "acne" to this latter condition while realizing at the same time the essential differences between it and the other three members of the group. The first three are regarded as local lesions to be treated by local remedies whereas acne rosacea is regarded as symptomatic of disorders of function of the liver or stomach.

During the next few decades the literature on acne becomes voluminous, with division of opinion particularly on the subjects of classification and nomenclature. There is argument as to whether the primary lesion of acne is a pustule or a papule; whether all pustular conditions of the face should be called acne; whether it was necessary for any lesion to have a red areola for it to qualify for the name acne, and so on.

They all agree, however, that the condition is primarily a disease of the sebaceous glands. They cite with varying emphasis and elaboration the predisposing factors and associated conditions mentioned by other and earlier writers. These factors, of which Baumès [29] makes a comprehensive list I may summarize as: constitutional factors, mode of life, use of cosmetics, affections of the alimentary tract, menstrual abnormalities, and supposedly abnormal sexual behaviour.

A new suggestion was made in 1842 by Gustav Simon [30] who considered the disease to be primarily of the hair follicle as distinct from the sebaceous gland, and who was also one of the first to discover the "acarus" or "demodex folliculorum" which he thought might occasionally be an aetiological factor. This acarus was very thoroughly studied by Erasmus Wilson [31] who was convinced that it played no part in the aetiology of acne. Nor did Erasmus Wilson [32, 33] accept Simon's views on the idea of the hair follicle being the seat of the disorder. In supporting the opposing view that the sebaceous glands were disordered he referred to the normal lubrication of the skin by the sebum and states: "But in the inhabitants of cities and towns in the midst of the sedentary and irregular habits of refined society, and of the mental wear and tear of practical life, such a state of the unctuous system of the skin as I am now describing rarely or never exists."

Of those who differed from Willan and Bateman in the matter of nomenclature I will mention only Fuchs [34], who in 1840 divided acne into Acne Vulgaris, Acne Mentagra and Acne Rosacea. This being the first use of the term "Acne Vulgaris", a term which has persisted to the present day.

It is in the voluminous chaos of the middle of the nineteenth century then that I propose to leave the subject of the history of acne. In conclusion perhaps I may summarize subsequent developments. The discovery towards the end of the nineteenth century of the acne bacillus paralysed all other research on the subject for about thirty years. The first real rays of light began to fall when Bloch [35] in 1931 proved conclusively the relationship of acne to puberty. Since then much has been achieved in confirming the views of seventeenth century and earlier physicians in modern scientific language, and by modern scientific technique. May I add that my own humble contribution to the problem [36] has been to elucidate the relationship between "ionthoi", or acne vulgaris, and "ionthos", the first growth of secondary sexual hair, a relationship which was obviously recognized by the ancient Greek physicians two and a half thousand years ago.

I wish to acknowledge with gratitude the kind co-operation of the Librarian and Staff of the Wellcome Historical Medical Library in the preparation of this paper and the accompanying photographs.

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## A Note on the Dental Key

By SIR FRANK COLYER, K.B.E., LL.D., F.R.C.S.

THE first knowledge we have of the dental key is in a paper published by Alexander Monro in 1742.<sup>1</sup> Monro describes it as "another instrument for drawing teeth" and it is not until 1754 that the word key appears in print and then under the name "Clef Anglaise" in a work by Lecluse.<sup>2</sup>

The instrument illustrated in Monro's paper is shown in Fig. 1. It consists of a metal shaft fixed in a wooden handle, at the end of the shaft is a projection to which a claw is attached by means of a screw. Monro states that the instrument as received by him from Dr. John Fothergill of London had a metal handle and that he

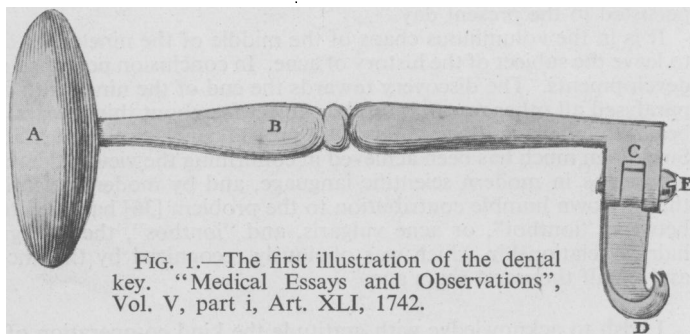


FIG. 1.—The first illustration of the dental key. "Medical Essays and Observations", Vol. V, part i, Art. XLI, 1742.

<sup>1</sup>*Medical Essays and Observations* (1742) Vol. V, part i, Art. XLI. Edin.

<sup>2</sup>*Nouveau Elements d'Odontologie*. Paris.